

CHAPTER 3

The use of freehand drawing as a means of teaching research methods in a business school

Gyuzel Gadelshina

Northumbria University

Rob Wilson

Northumbria University

Paul Richter

Newcastle University

McKenzie Lloyd-Smith

City, University of London

Abstract

This chapter discusses the results of educational action research designed in response to pedagogical challenges of teaching social science research methods to business students. The main aim of this research was to develop a more participative and engaging approach to the delivery of a research methods module to business students based on a 'students as researchers' pedagogy. This has been achieved by integrating the theme of 'student satisfaction' into the teaching content on a research methods module and by introducing a freehand drawing activity as a research tool to generate some useful data related to the understanding of students' lived experience at the university. In this chapter, we show how collecting and analyzing students' freehand drawings allows for illuminating the subtle, yet complex, phenomenon of student satisfaction from a student perspective. We propose that by exploring students' lived experiences through the medium of freehand drawing, students and teaching professionals can enhance their critical understandings of what constitutes a satisfied student. Selected examples of students' drawings are used to explain how the analysis of visual data can help both students and teachers explore issues related to student satisfaction in a novel and insightful way.

Keywords

Freehand drawing, research methods, student satisfaction

1 Introduction

Teaching research methodology poses a major pedagogical challenge for many academics and teaching professionals. This subject is usually associated “with boredom, lack of relevance, and with all that is held to be worst about academia: an obsession with theory, with trivial, arcane distinctions and with pointless detail” (Harrington & Booth, 2003, p. 7). Certainly, our own experience of teaching research methods to undergraduate and postgraduate business students has presented us with considerable difficulties in motivating students and in communicating the relevance of the research methods training to their degree programs.

In this chapter, we respond to this challenging context by presenting an innovative way of teaching research methods to undergraduate business students in a UK business school (Richter et al., 2009). Firstly, we integrated the theme of student satisfaction in research activities within the research methods module. Secondly, we introduced a freehand drawing activity in the classroom to explain to students how an unconventional method for data collection can be used to explore issues surrounding student satisfaction. Thirdly, we used students’ freehand drawings to generate more in-depth classroom discussions around the student learning experience.

We start this chapter by providing a brief overview of a ‘students as researchers’ pedagogy followed by a discussion of student satisfaction within a higher education context. We also discuss the benefits of utilizing a freehand drawing activity in teaching research methods. We explore the pedagogic value of our teaching innovation with a broader aim of inspiring our readers to develop more participative student-centered approaches to their teaching in response to evolving expectations of a more demanding student body.

2 **A ‘students as researchers’ pedagogy**

As higher education responds to external pressure and internal drivers, views of students have been constantly changing and continue to change covering a wide range of roles including students as consumers (Tomlinson, 2017; Woodall et al., 2014), students as customers (Clayson & Haley, 2005; Cuthbert, 2010; Sirvanci, 1996), students as clients (Bailey, 2000), students as co-producers (Kotzé & Du Plessis, 2003), and students as partners (Healey et al., 2016; Mercer-Mapstone et al., 2017). Ramsden (2008) argues that in order to meet the growing challenges confronting higher education institutions “we require curricula that ... extend students to their limits [and] that develop skills of inquiry and research...” (p. 10). This agenda involves further development of innovative pedagogical approaches to promote research-teaching linkages by developing students’ appreciation of research in their discipline (Walkington, 2015).

As university lecturers teaching research methods, we had a long-standing interest in aligning this area of teaching with research in business and management. One of the most effective ways to bring undergraduate students closer to the research process is to see them as producers “not just consumers of knowledge” (Healey & Jenkins, 2009, p. 23). We would argue that more in-depth engagement of our students in research and inquiry can be achieved through the introduction of a “student as researcher” pedagogy. This pedagogy represents an innovative form of staff-student partnership which provides undergraduate students with valuable research experience as a means for facilitating educational change (Brew & Mantai, 2017; Maunder et al., 2013; Thomson & Gunter, 2007; Walkington, 2015; Willison & O’Regan, 2007).

3 **Student satisfaction**

Student satisfaction has been widely recognized as an integral part of students’ learning experience in higher education (Burgess et al., 2018; De Lourdes Machado et al., 2011; Douglas et al., 2008; Gruber et al., 2010). Over the past decades, multiple studies have examined the conceptual relationship between student satisfaction and various dimensions including teaching facilities, academic staff, teaching methods, interaction quality, identity of the higher education institution, support services, learning environment, course administration, skills development, and preparation for the future (Clemes et al., 2008; Gibson,

2010; Navarro et al., 2005; Santini et al., 2017). Improving student satisfaction has been shown to have a positive impact upon student motivation and fundraising (Elliott and Shin, 2002), along with student recruitment (Thomas and Galambos, 2004), retention (Schertzer & Schertzer, 2004) and loyalty (Annamdevula & Bellamkonda, 2016).

Although these studies made significant contribution to the understanding of student satisfaction, they are overwhelmingly based on utilizing survey-based methods which generate quantitative data on a module, program, or university level. While it is acknowledged that a university's product is the sum of the student's academic, social, physical, and even spiritual experiences, the majority of satisfaction measures are designed to simply assess the net satisfaction of a student (e.g., Herbert, 2006). It is argued that traditional approaches to data collection about student satisfaction are based upon what the educational institution perceives as the most important to its students (Joseph et al., 2005; Oldfield and Baron, 2000). Moreover, student satisfaction surveys deny the opportunity to provide a dynamic dialogue between the institution and its students and they can leave students with a sense that their opinions are under-valued.

In response to this situation, we developed a more participative and engaging approach to collecting and analyzing student satisfaction data which goes beyond structured questions and Likert scales. Our pedagogic innovation aims to illuminate the subtle yet complex phenomenon of student satisfaction from a student perspective by collecting and analyzing students' freehand drawings in the context of teaching research methods to business school undergraduates.

4 Freehand drawing

In recent years there has been an explosion of interest in a wide range of visual approaches in teaching and learning practice. A variety of visual tools and toolkits have been introduced in higher education institutions allowing the development of students' visual literacy and the enhancement of student learning and engagement (Beaudoin, 2016; Bowen, 2017; Donnely & Hogan, 2013; Holland, 2014; Kędra, 2018; Schönborn & Anderson, 2006; Sweeney & Hughes, 2017). Despite the growing attention being given to the use of visuals in higher education, pedagogical research has yet to fully embrace the potential benefits of using freehand drawing in teaching and learning practice within business schools and beyond. Although, in social sciences drawing has long been

recognized as an empirical method for eliciting in-depth and latent information about complex, difficult, subjective, and constantly fluctuating human experiences (Clarke & Holt, 2019; Spencer, 2011), there are few studies that demonstrate the value of freehand drawing as an educational tool within teaching and learning processes in higher education (Feeney & Hogan, 2017; Feeney et al., 2015; Gadelshina et al., 2019). This is an emergent research agenda that our action research seeks to contribute.

One of the main benefits of using freehand drawings as a valuable medium for exploring student learning experience is related to the possibility of getting access to students' own understanding and interpretation of their experience which they convey in the process of drawing and making sense of their drawings. A blank piece of paper and utilization of whatever available drawing instruments allows for multi-symbol, creative expression, unbarred by closed or open-ended questions used in more traditional research tools such as questionnaires and interviews. This means that students "are not being prompted by the researchers' frame of reference" (MacPhail & Kinchin, 2004, p. 91) and can freely choose how they represent their learning experience in pictorial form, what they want to include in their drawings and what aspects of their experience are more significant to them. Thus, students' freehand drawings offer rich qualitative data that is below the radar of most traditional pedagogic research analyzing student satisfaction.

5 The research design

The teaching innovation discussed in this chapter was developed on the basis of a 20-credit research methods module delivered for undergraduate business students in their second year in a UK-based business school. The overarching aim of this teaching innovation was to develop a more engaging approach to the delivery of social science research methods to business students based on a 'students as researchers' pedagogy. To achieve this research aim, the educational action research strategy was employed. Action research is a form of applied research which is based on the following principles: the generation of new knowledge, the achievement of action-oriented outcomes, the education of both researcher and participants, results that are relevant to the local setting, and a sound and appropriate research methodology (Bradbury, 2015; Herr & Anderson, 2005). In organizations,

action research as a practice refers to “what people do, individually and collectively... when they inquire into how they can find ways to improve what they are doing” (McNiff, 2014, p.14). In education, action research offers researchers and practitioners ways of fostering learning, making improvements in the learning environment, and developing the individual (Efron & Ravid, 2019; Stringer, 2008).

Guided by the principles of action research strategy, we integrated the theme of student satisfaction into the research training material throughout the research methods module. The teaching and learning plan for the module is presented in Appendix 1. This theme has been carefully selected as the framing device for the teaching of research methods to business students for the following reasons. Firstly, all students can inherently relate to this theme and, therefore, it could be engaging as a learning device. Secondly, the theme of student satisfaction could serve as a valuable mode of data collection. Thirdly, it could serve as a creative means of bridging the research-teaching nexus to move the emphasis of the teaching of research away from ‘student as audience’ towards a more ‘student as participant’ and ‘research based’ inquiry mode (see Healey and Jenkins, 2009).

Several practical classroom activities were carried out in an attempt to co-produce various data (including interviews, questionnaires, ethnographic observations) related to the understanding of student satisfaction. Importantly, the teaching team endeavored to feedback the initial analysis of collected data to students in subsequent lectures with a view to illustrate important steps of the research process and to capture students’ reflections. For example, in terms of specific activities, during one of the lectures, students were given the opportunity to interview each other in pairs about their experience as students. Another activity involved asking students to analyze transcripts of interviews carried out by the teaching team with other students around the issue of satisfaction. As part of their research training on the module, students were also encouraged to explore their learning experience in the university by producing, analyzing, and critically discussing freehand drawings.

6 Data collection

The learning activity, which is the focus of this chapter, entailed students drawing a picture of a ‘satisfied student’ and primarily concerned with students creating, collecting, and analyzing visual data around an issue that was critical to them. The students were asked to “draw a picture of a

satisfied student” individually with the proviso that the lecturer should be able to discern why the student was satisfied with his/her overall learning experience in the university – i.e., that students adequately represented the concept of satisfaction. Every student was given a blank piece of paper and advised to use any available drawing instruments such as a pen, pencil, marker, etc. The pictures were then collected and used as the basis of an initial class plenary focusing on the collection of visual data and some preliminary analysis was conducted by the whole class, facilitated by the lecturer.

In our research, freehand drawing was used as a participatory visual methodology (Mitchell et al., 2017). We employed classroom discussions immediately following the students’ freehand drawing activity with the aim of invoking their spontaneous and impulsive response. One of the criticisms levelled against this approach considers that “immediate verbalization of the images can result in verbal overshadowing and limit the visual insights created by the images” (Clarke & Holt, 2019, p. 3). However, by inviting students to make meaning of their drawings we pursued two objectives. Firstly, we offered them a safe opportunity to experience learning through research by developing a first-level analysis of their drawings. Secondly, we put the emphasis on creating a trustworthy research process which fostered truly collaborative meaning-making of drawn products by students and their teachers. During subsequent lectures, a more comprehensive data analysis was conducted by a lecturer using a composite picture drawn on the classroom whiteboard. This activity was followed by a thematic and discourse analysis presenting a range of options concerning visual data analysis. During this classroom discussion, students could appreciate that there is not “a single, prescriptive approach to using drawing as a data generation tool” (Theron et al., 2011, p. 22).

Guided by the principles of action research strategy, we have been collecting students’ drawings in our commitment to explore and understand how the student learning experience can be improved beyond the framework of the research methods module. Over a period of five years, 1297 freehand drawings have been produced by students undertaking a research methods course. Over these years we have expanded our data collection of freehand drawings and included postgraduate students and lecturers. All collected freehand drawings were digitized, allowing them to be coded. Images were coded based on their features, and a hierarchy of coding nodes was developed. When researchers conducted a second level of analysis and developed their own

understanding of what was drawn, they considered the original interpretations provided by the students in classroom discussions. One of the examples of the culturally nuanced interpretation was a drawing of a pig's head produced by a Chinese student. For the researchers who grew up in a Western tradition this picture appeared meaningless in relation to student satisfaction. However, it was explained by an author of the drawing that a pig's head picture symbolized the fact that this student had been sponsored by the village to come to a university in the UK so upon returning the village inhabitants would all benefit from this venture. Obviously, it would be very difficult for a research team to interpret this drawing without this culture-specific background knowledge.

The coding process resulted in the following set of features:

Top Level

- Quality of drawing
- Usefulness of drawing
- Environment

Human Features

- Person
- Facial Emotion

Individual Features

- Non-Study Related Features
- Study Related Features

Other

- Timescale
- Spatial

7 Research findings and discussion

The results of our research thus far are promising. Our observations suggested that students as researchers were keen to engage with issues relating to student satisfaction in the process of learning about the theory and practice of academic research in a more open and creative way. Positioning students as knowledge co-producers allowed us to flatten the researcher-participant hierarchy which has often characterized traditional pedagogic research. Collecting freehand drawings and discussing them with students in the classroom enabled us to get insights into what constitutes satisfaction from a student perspective.

Analysis and interpretation of the students' freehand drawings revealed that student satisfaction is based upon the total learning experience, and it is not solely based on one criterion or singular

component of education, but rather a combination of factors and experiences including but not limited to: educational outcomes, the campus environment and classroom environment. Thus, similarly to Wiers-Jenssen et al. (2002), analysis of students' drawings indicated that student satisfaction is a rather complex concept which is influenced by a wide variety of contextual factors that are not intrinsically related to the quality of teaching. Interestingly, the images tended to emphasize hoped-for future outcomes as opposed to, for example, a sense of satisfaction with the process of education, although the latter did feature in the analysis. Many pictures represented graduation day scenes featuring students clutching a degree certificate in one hand (often labelled first class or 2.1 for undergraduates with distinction or pass for postgraduates) and an alcoholic drink in the other and thought bubbles containing symbols of a desired lifestyle (pound/dollar signs; empty diaries/desks; nightclubs; houses; happy relationships).

Collaborative meaning-making around students' freehand drawings have illuminated what factors students themselves considered most important to their satisfaction. Interestingly, many of these factors are not typically captured by the more conventional feedback methods found within traditional pedagogic research. Such methods tend to regard student satisfaction as a notion which is "coherent, homogenous and unproblematic" (Richardson, 2005, p. 403). Although, of course, visual data collected in the framework of our research does not necessarily represent how students feel about their own experience of studying (i.e., whether or not they are satisfied), rather, they show a representation of student satisfaction. Factors that are not usually captured by student satisfaction surveys but that are salient in students' drawings and, therefore, worth noting include:

- Graduation – 833 references (see Fig. 3.1)
- Alcohol – 210 references (see Fig. 3.2)
- Money – 172 references
- Relaxing – 98 references (see Fig. 3.3)
- No work – 91 references
- The sun and/or warmth – 70 references
- Bar/Club Environment – 40 references
- Bed Environment – 40 references (see Fig. 3.4)
- Independence – 5 references
- Respect – 4 references
- Social networks – 1 reference

[PLACE Fig. 3.1 HERE]

[PLACE Fig. 3.2 HERE]

[PLACE Fig. 3.3 HERE]

[PLACE Fig. 3.4 HERE]

Other interesting features which resonate with existing pedagogic research and student satisfaction surveys include:

Studying – 210 references

Quality of Teaching – 55 references

Support for Student – 38 references

Interesting Course and/or Topic – 34 references

Aside from the findings already noted, there were also largely unanticipated consequences of the teaching innovation. In our attempt to flatten the research-participant hierarchy and to give voice to students as our co-researchers, we created a set of occasions for students to individually and collectively articulate feelings and attitudes about their experience in a manner not ordinarily available to them. This can be seen as positive for different reasons. It provided the chance for students to be exposed to and challenged by varied and potentially new perspectives on the debate surrounding the student experience (for example, what it means to be a student; who the 'customer(s)' of higher education are; the degree of 'satisfaction' experienced by lecturing staff and so on). It also gave students a forum for 'having a whinge', which prompted complaints about timetabling (where other degree programs were perceived to take precedence over their own in terms of convenience and some lectures are scheduled consecutively in different parts of the campus), the unequal number of contact hours across programs, and the lack of an undergraduate common room.

As is the case with any other data collection method, freehand drawing as a data-generation tool has certain limitations. One of the issues is related to an argument that drawing is a typically *artistic* process. Thus, it can cause apprehension in some people, because not all the research participants feel confident about their drawing skills, and this could lead

to potential embarrassment among their peers. Research has shown that when asked to draw an image, some students might initially resist (Gadelshina et al., 2019). In our research, we reassured students that the focus of our study is on the content of their drawings not on the artistic quality of their drawings. As a result of this reassurance only 32 of the 1297 participants chose to write only words and not draw, suggesting that the apprehension of drawing is not worrying enough to cause a significant percentage of participants to avoid or deviate from the task. Another issue is that some of the factors could be considered relatively complex to draw. Unlike “alcohol”, “books” and “bed environment”, features such as “independence” and “respect” do not have the same easily recognizable visual associations. However, students were advised that they could write as well as draw, if they wished, and many students chose to support their drawings with words. Additionally, our research observed that the freehand drawing activities in the classroom might be related to direct and indirect influence from peers as far as the nature of the data generated by students is concerned.

When assessing the quality of our pedagogic action research, we follow Elliott (2007, p. 229) who argues that “each kind of teacher research will need to be judged on its own terms”. Therefore, we consider that the conventional criteria of reliability and validity are less applicable to our research. We address the quality of our educational action research through lenses which encompass notions of merit, worth, and significance rather than applying traditional criteria of validity and reliability. To ensure the quality of action research we addressed several criteria. Firstly, we focused on a theme of student satisfaction that was of practical concern to students involved in the research activities. Secondly, in the classroom, we facilitated the rich exploration of students’ reflections, perceptions, and views on student satisfaction by using various methods of data collection including interviews, questionnaires, ethnographic observations, and freehand drawings. Furthermore, students were engaged in interpreting the messages that their generated visual and non-visual data were intended to convey. Thirdly, collected visual data was analyzed collaboratively during the classroom activities enabling students and teachers to call their existing stock of knowledge about student satisfaction into question and to test it against data collected in the classroom. Fourthly, we were committed to working and creating knowledge together with our students towards improvement of their learning experience. Critical discussion of student satisfaction empowered both students and teachers to generate in-depth insights and

opened new prospects for action related to improvement of the student learning experience in general and student satisfaction in particular.

8 Reflection

Following principles of action research, we engaged our students in ongoing classroom conversations about how student satisfaction can be improved. Therefore, our students have become involved in the process as researchers or active partners with some interesting and encouraging results as opposed to being assigned the role of research informants suggested in traditional pedagogic research. Taking part in research activities of producing and analyzing visual data, students were able to enter a meaningful dialogue about studenthood by working closely with lecturers and peers to construct insightful interpretations of student satisfaction.

Generating freehand drawings in the class and discussing them with students afterwards showed that learning research methods could be truly interactive when students 'co-construct' knowledge via dialogue with each other and their teachers (Vygotsky, 1978). Moreover, when experiencing the research journey themselves students could take responsibility for creating knowledge and answering real questions that are critical for them. For example, when students were encouraged to reflect on the lecturer's critical analysis of the composite picture, this provoked significant classroom debate around the meanings and significance of being satisfied and satisfaction – itself, a valuable data generation exercise for developing students' awareness of the normalization of the term "student satisfaction" and its critique. Furthermore, based on a drawing of a composite picture, a lecturer made the prompt "... and what is interesting from a critical perspective is what is not there...?", inviting students to think about this. Most of the students found that this question was really hard to answer, and the lecturer would eventually say "Could it be how you have changed and the processes around that?". Students offered a variety of responses to this supporting question including the one which we remember due to its indignant nature - "You never told us to draw that."

Overall, apart from presenting an accessible substantive context within which research methods might be better understood, our innovative way of teaching research methods based on a 'students as researchers' pedagogy offered a set of activities in which students were producers of knowledge and not just consumers. It opened up a space for the student

voice to be heard and valued in a novel way. Our research shows that the students' perspective on the complex and multi-dimensional student experience can be more comprehensively understood via a dynamic mix of research and engagement methods such as freehand drawing. The richness of the visual images produced by students and the classroom interactions that followed the drawing exercise offer a means of gaining further insight into the ways in which students interpret and understand their world. Opening up a richer discussion about student satisfaction within research methods training, may in itself lead to increased student satisfaction as well as provide good grounds for reflection about learning experience for students and for teaching staff.

Reflecting upon the question: How successful was our approach to teaching research methods to undergraduate students as a pedagogical innovation? We would cautiously argue that it was successful in a number of respects. Firstly, as observations of the classroom interactions suggested, the use of the 'student satisfaction' theme as a framing device for the teaching of research methods appeared to have been well received by our students. It allowed for the introduction and evaluation of multiple research approaches, acting as a constant against which different research practices could be analyzed. And from the perspective of the teaching team, it felt as if students were more engaged than they often are in the lecture setting. They were more willing to openly discuss their experiences as students and to consider how diverse research methodologies including visual data collection and analysis might usefully capture their experiences in innovative ways. Secondly, we believe that the success of our research methods module had much to do with the value-added component of engagement with students as researchers which went well beyond only theoretical discussion of social research methods and offered the successful combination of both: the conducting of research by students and the collaborative interpretation of collected data by students and teachers. Thirdly, we received encouraging feedback from students via the formal module evaluation exercise conducted by the Business School. Several comments made by students in the 'good things about the module' section of the form suggest our classroom engagement activities were well-received and helped make the practice of 'research' a more immediate and tangible experience.

9 Conclusion

Higher education institutions across the world are constantly looking for innovative ways of enhancing the quality of teaching and learning in order to deliver a satisfying student experience. Based on the results of our action research, we believe that teaching professionals and higher education institutions could incorporate visual data in their research toolkits of collecting and analyzing student satisfaction. Freehand drawing as a visual research methodology, albeit often overlooked by teaching professionals, can help accessing hidden or ignored aspects of students' lived experiences, and thus, develop a better recognition of student support needs in their process of becoming empowered, confident, and capable learners. By giving voice to students as our co-researchers we can also enhance our understanding of students' anxieties and insecurities so they can be addressed and reduced. But more importantly, as principles of action research suggest, we could revise our teaching practices and learning approaches in light of this enhanced knowledge and understanding to deliver a more meaningful and satisfying student experience.

Reference list

- Annamdevula, S., & Bellamkonda, R. S. (2016). The effects of service quality on student loyalty: the mediating role of student satisfaction. *Journal of Modelling in Management*, 11(2), 446–462. <https://doi.org/10.1108/JM2-04-2014-0031>
- Bailey, J. J. (2000). Students as clients in a professional/client relationship. *Journal of Management Education*, 24(3), 353-365.
- Beaudoin, J. E. (2016). Describing images: A case study of visual literacy among library and information science students. *College and Research Libraries*, 77(3), 376–392. <https://doi.org/10.5860/crl.77.3.376>
- Bowen, T. (2017). Assessing visual literacy: A case study of developing a rubric for identifying and applying criteria to undergraduate students learning. *Teaching in Higher Education*, 22(6), 705-719. <https://doi.org/10.1080/13562517.2017.1289507>
- Bradbury, H. (Ed.). (2015). *The Sage handbook of action research*. Sage.
- Brew, A., & Mantai, L. (2017). Academics' perceptions of the challenges and barriers to implementing research-based experiences for undergraduates. *Teaching in Higher Education*, 22(5), 551-568.

- Burgess, A., Senior, C., & Moores, E. (2018). A 10-year case study on the changing determinants of university student satisfaction in the UK. *PloS one*, *13*(2), e0192976.
- Clayson, D. E., & Haley, D. A. (2005). Marketing models in education: Students as customers, products, or partners. *Marketing education review*, *15*(1), 1-10.
- Clarke, J. S., & Holt, R. (2019). Images of entrepreneurship: Using drawing to explore entrepreneurial experience. *Journal of Business Venturing Insights*, *11*, e00129.
- Clemes, M. D., Gan, C. E., & Kao, T. H. (2008). University student satisfaction: An empirical analysis. *Journal of Marketing for Higher Education*, *17*(2), 292-325.
- Cuthbert, R. (2010). Students as customers. *Higher Education Review*, *42*(3), 3-25.
- de Lourdes Machado, M., Brites, R., Magalhães, A., & Sá, M. J. (2011). Satisfaction with higher education: Critical data for student development. *European Journal of Education*, *46*(3), 415-432.
- Donnelly, P. F., & Hogan, J. (2013). Engaging students in the classroom: 'How can i know what I think until I see what I draw?' *European Political Science*, *12*, 365-383. <https://doi.org/10.1057/eps.2013.12>
- Douglas, J., Douglas, A., & Barnes, B. (2006). Measuring student satisfaction at a UK university. *Quality Assurance in Education*, *14*(3), 251-267.
- Douglas, J., McClelland, R., & Davies, J. (2008). The development of a conceptual model of student satisfaction with their experience in higher education. *Quality Assurance in Education*, *16*(1), 19-35.
- Efron, S. E., & Ravid, R. (2019). *Action research in education: A practical guide*. Guilford Publications.
- Elliott, J. (2007). Assessing the quality of action research, *Research Papers in Education*, *22*:2, 229-246. <https://doi.org/10.1080/02671520701296205>
- Elliott, K.M. & Shin, D. (2002). Student Satisfaction: An alternative approach to assessing this important concept. *Journal of Higher Education Policy and Management*, *24* (2), 197-209.
- Feeney, S., Hogan, J., & Donnelly, P. F. (2015). What stick figures tell us about Irish politics: Creating a critical and collaborative learning space. *Teaching in Higher Education*, *20*(3), 313-327. <https://doi.org/10.1080/13562517.2015.1016416>
- Feeney, S., & Hogan, J. (2017). Using drawings to understand perceptions of civic engagement across disciplines: 'Seeing is understanding'. *Politics*. <https://doi.org/10.1177/0263395717740033>
- Gadelshina, G., Cornwell, A., & Spoons, D. (2019). Understanding corruption through freehand drawings: a case study of undergraduate business students' visual learning in the classroom. *Journal of Visual Literacy*, *38*(1-2), 142-152.

- Gibson, A. (2010). Measuring business student satisfaction: A review and summary of the major predictors. *Journal of Higher Education Policy and Management, 32*(3), 251-259.
- Gruber, T., Fuß, S., Voss, R., & Gläser-Zikuda, M. (2010). Examining student satisfaction with higher education services: Using a new measurement tool. *International Journal of Public Sector Management, 23*(2), 105-123.
- Harrington, J. & Booth, C. (2003). Research Methods Courses in Undergraduate Business Programmes: An Investigation. A report to the Learning and Teaching Support Network, *Business Education Support Team*. Bristol Business School
- Healey, M., Flint, A., & Harrington, K. (2016). Students as partners: Reflections on a conceptual model. *Teaching & Learning Inquiry, 4*(2), 8-20.
- Healey, M., & Jenkins, A. (2006). Developing students as researchers. *Education, 3*.
- Healey, M., & Jenkins, A. (2009). *Developing undergraduate research and inquiry*. Higher Education Academy.
- Herbert, M. (2006). Staying the course: A study in online student satisfaction and retention. *Online Journal of Distance Learning Administration, 9*(4), 300-317.
- Herr, K., & Anderson, G. L. (2005). The continuum of positionality in action research. *The action research dissertation: A guide for students and faculty, 29-48*.
- Holland, J. (2014). Video use and the student learning experience in politics and international relations. *Politics, 34*(3), 263–274. <https://doi.org/10.1111/1467-9256.12022>
- Joseph, M., Yakhou, M., & Stone, G. (2005). An educational institution's quest for service quality: customers' perspective. *Quality Assurance in Education, 13* (1), 66-82.
- Kędra, J. (2018). What does it mean to be visually literate? Examination of visual literacy definitions in a context of higher education. *Journal of Visual Literacy, 37*(2), 67-84.
- Kotzé, T. G., & Du Plessis, P. J. (2003). Students as “co-producers” of education: a proposed model of student socialisation and participation at tertiary institutions. *Quality assurance in education*.
- MacPhail, A., & Kinchin, G. (2004). The use of drawings as an evaluative tool: students' experiences of sport education. *Physical Education & Sport Pedagogy, 9*(1), 87-108.
- Mauder, R. E., Cunliffe, M., Galvin, J., Mjali, S., & Rogers, J. (2013). Listening to student voices: Student researchers exploring undergraduate experiences of university transition. *Higher Education, 66*(2), 139-152.
- McCulloch, A. (2009). The student as co-producer: Learning from public administration about the student–university relationship. *Studies in Higher Education, 34*(2), 171-183.

- McNiff, J. (2014). *Writing and doing action research*. Sage.
- Mercer-Mapstone, L., Dvorakova, S. L., Matthews, K. E., Abbot, S., Cheng, B., Felten, P., & Swaim, K. (2017). A systematic literature review of students as partners in higher education. *International Journal for Students as Partners*, 1(1).
- Mitchell, C., de Lange, N., & Moletsane, R. (2017). *Participatory visual methodologies: social change, community and policy*. Sage.
- Navarro, M. M., Iglesias, M. P., & Torres, P. R. (2005). A new management element for universities: satisfaction with the offered courses. *International Journal of Educational Management*, 19(6), 505–526.
- Oldfield, B. M., & Baron, S. (2000). Student perceptions of service quality in a UK university business and management faculty. *Quality Assurance in Education*, 8 (2), 85-95.
- Ramsden, P. (2008). *The future of higher education: Teaching and the student experience*. Higher Education Academy.
- Richardson, J. T. (2005). Instruments for obtaining student feedback: A review of the literature. *Assessment & evaluation in higher education*, 30(4), 387-415.
- Richter, P., Wilson, R., & Whiston, B. (2009). *Final Report of UTLC Innovation project: Teaching Research methods Innovation through Co-production of Knowledge with Students (TRICKS)*. Centre for Knowledge, Innovation, Technology and Enterprise. Newcastle University Business School.
- Schönborn, K. J., & Anderson, T. R. (2006). The importance of visual literacy in the education of biochemists. *Biochemistry and Molecular Biology Education*, 34(2), 94–102. <https://doi.org/10.1002/bmb.2006.49403402094>
- Sirvanci, M. (1996). Are students the true customers of higher education? *Quality progress*, 29(10), 99-102.
- Santini, F. d. O., Ladeira, W. J., Sampaio, C. H., & da Silva Costa, G. (2017). Student satisfaction in higher education: a meta-analytic study. *Journal of Marketing for Higher Education*, 27(1), 1–18.
- Schertzer, C.B., & Schertzer, S.M.B. (2004). Student satisfaction and retention: a conceptual model. *Journal of Marketing for Higher Education*, 14 (1), 79-91.
- Spencer, S. (2011). *Visual research methods in the social sciences*. Routledge.
- Stringer, E. T. (2008). *Action research in education*. Pearson Prentice Hall.
- Sweeney, S., & Hughes, D. (2017). Integrating visual literacy training into the business curriculum: A case study at Dublin Business School. *DBS Business Review*, 1, 61–88. <https://doi.org/10.22375/dbsbr.v1.7>
- Theron, L., Mitchell, C., & Smith, A. L. Stuart. J. (Eds.). (2011). *Picturing research: Drawing as Visual Methodology*. Springer.

- Thomas, E. H., & Galambos, N. (2004). What satisfies students? Mining student-opinion data with regression and decision tree analysis. *Research in Higher Education, 45* (3), 251-269.
- Thomson, P., & Gunter, H. (2007). The methodology of students-as-researchers: Valuing and using experience and expertise to develop methods. *Discourse: Studies in the Cultural Politics of Education, 28*(3), 327-342.
- Tomlinson, M. (2017). Student perceptions of themselves as 'consumers' of higher education. *British Journal of Sociology of Education, 38*(4), 450-467.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Walkington, H. (2015). Students as researchers: Supporting undergraduate research in the disciplines in higher education. *The Higher Education Academy*.
- Wiers-Jenssen, J., Stensaker, B. R., & Grøgaard, J. B. (2002). Student satisfaction: Towards an empirical deconstruction of the concept. *Quality in higher education, 8*(2), 183-195.
- Willison, J., & O'Regan, K. (2007). Commonly known, commonly not known, totally unknown: a framework for students becoming researchers. *Higher Education Research & Development, 26*(4), 393-409.
- Woodall, T., Hiller, A., & Resnick, S. (2014). Making sense of higher education: Students as consumers and the value of the university experience. *Studies in higher education, 39*(1), 48-67.

**ABSTRACT 1 Research methods module teaching and learning plan
(12 teaching weeks – 36 contact hours)**

Teaching weeks	Subject of lecture (1 hour)	Integration of the selected theme of 'student satisfaction'. Suggested teaching activities for 2-hour sessions
1	What is research?	Activity – Classroom discussion “How should the university best elicit student feedback?”. Students use post-it (sticky) notes to write down their thoughts and to share them with the class.
2	Developing research questions	Activity – Students create a concept map of student satisfaction followed by a classroom discussion and reflection. Activity – Students develop research questions about student satisfaction using a concept map.
3	Literature review	Activity – Individual studies
4	Research philosophy	Activity – Students consider which category of research (exploratory, descriptive or explanatory) could be applied to studies of student satisfaction.
5	Research design Quantitative and Qualitative approaches	Activity – Students consider advantages and disadvantages of survey/case study/ethnography/multi-method in understanding the concept of student satisfaction.
6	Quantitative data collection methods in practice. Questionnaire design and administration	Activity – Students design a short questionnaire to measure levels of student satisfaction. Activity – Students complete National Student Survey (NSS) questionnaire individually. Students evaluate questionnaire as a research instrument in pairs.

7	Quantitative data analysis	Activity – Students consider how quantitative data can be analyzed and presented.
8	Qualitative data collection	Activity – Demonstration of potential sampling frames within student satisfaction research. Activity – Interview data collection. Students interview each other to learn more about their understanding of student satisfaction. Activity – Visual data collection. Students draw pictures of ‘a satisfied student’.
9	Qualitative data analysis	Activity – Analysis of student-generated freehand drawings. Activity – Students analyze interview transcripts (using various analytical frames).
10	Ethnography	Activity - Students reflect on advantages and disadvantages of ethnographic approach to understanding student satisfaction.
11	Action research	Activity – Voting system used to capture ongoing feedback at various points during the lecture. Activity – Students write their opinion on purpose of the teaching innovation on post-it notes. Students’ responses categorized as a group exercise. Activity – Action research data packs dispensed to students for consideration.
12	Summary	Activity – Summative group evaluation of the course. Group discussion reflecting upon success/failure of various research activities used to explore student satisfaction.

